

REMARKS

Claims 1-8 are pending in the present application. In the above amendments, claims 1, 2, 3, 4, 7 and 8 have been amended, and new claims 9-41 have been added.

In the Office Action mailed August 31, 2006, the Examiner rejected claim 4 on the grounds that the recitation in lines 3-4 of claim 4 "summing a second of the multiple parts of the first signal with a second of the multiple parts of the second signal" is vague and indefinite.

The Examiner has objected to Claims 5 and 6 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

Claim 6 is rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

Claims 3-6 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claims 4-6 are rejected as depending directing from rejected claim 3.

Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Smith (US 5,021,801).

Claims 1-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meidan (US Patent No. 5,276,907) in view of Schilling (US Patent No. 5,422,908).

Applicant respectfully responds to this Office Action.

INFORMATION DISCLOSURE STATEMENT

The Examiner stated that the information disclosure statement filed June 4, 2002 fails to comply with 37 CFR 1.98(a)(2). Applicants respectfully disagree with the Examiner. All documents cited as missing by the Examiner were previously submitted and properly identified in the Information Disclosure Statement in the earlier US Patent Application No. 08/495,382, which is relied upon for an earlier effective filing date under 35 U.S.C. 120. 37 C.F.R. 1.98. See the attached Supplemental IDS from Application No. 08/495,382, dated November 20, 1995 ("Attachment A") and Supplemental IDS from Application No. 08/495,382, dated December 12, 1995 ("Attachment B").

SPECIFICATION

Applicant provides herewith amendments to the specification. The amendments to the specification are made by presenting marked up replacement paragraphs which identify changes made relative to the immediate prior version.

The changes made are primarily typographical or grammatical in nature, or involve minor clarifications of awkward wordings.

With respect to the Specification, the Examiner states in section a, "The recitation in page 13 line 9 "FIG. 3" is improper, because paragraph in page 13 lines 9-19 is describing FIG. 2. Applicants respectfully disagree with the Examiner. FIG. 3 provides further detail with respect to the switch matrix 74 which is referenced in page 13, lines 9-13. Therefore, no amendment is necessary.

The Specification has been amended to comply with the Examiner's suggestions made in sections b-e.

Applicant believes these changes add no new matter to the application and are fully supported by the original disclosure.

CLAIM OBJECTIONS

Claim 4 has been amended in accordance with the Examiner's recommendation.

35 U.S.C. 112 Rejection:

The Examiner rejected claims 5 and 6 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner states that "claim 5 is rejected because the specification doesn't disclose 'generating an In-phase component and a Quadrature component of the first summation signal; and generating an In-phase component and a Quadrature component of the second summation signal.'" Applicants respectfully disagree with the Examiner. FIG. 6 discloses diversity receivers 250-252 which "frequency downconverts, and digitizes the received signal into composite I and Q components. The composite I and Q components [are] then demodulated, combined, deinterleaved and decoded. . . . Each I and Q component may be comprised of data signals from a given subscriber unit received by two or

more of the antennas 85-90 associated with adjacent coverage areas C1-C6 of a given user sector." See page 18, lines 3-10 of the Specification. The received signals are received from summation networks 240 -242 respectively.

With respect to claim 6, the Examiner states "Claim 6 is rejected because the specification doesn't disclose 'despreading the In-phase component and the Quadrature component of the first summation signal with the despreading code; offsetting the despreading code by a first phase delay to form a delayed despreading code; and despreading the In-phase component and the Quadrature component of the second summation signal with the delayed despreading code.'" Applicants respectfully disagree with the Examiner. In the specification it states "From the composite I and Q components each finger extracts, by despreading, the I and Q components RI and RQ of the pilot and data signals associated with each coverage area. . . . The relative phases of the PN long codes supplied to the receivers 251-252 are offset by predetermined margins by phase delay elements 270 and 272, as illustrated." Page 18, lines 13-21. "[A] decorrelating delay is introduced between signals received from adjacent coverage areas." Page 17, lines 11-13. "The amplifiers 210-215 are further seen to include delay elements 225A-225F capable of providing delays slightly longer than the chip period of the PN long code used to discriminate between user sectors." Page 17, lines 19-22.

With respect to claim 3, the Examiner states there is insufficient antecedent basis for "summing one of the multiple parts of the first signal with one of the multiple parts of the second signal to form a first summation signal." In response, "the multiple parts" has been changed to - multiple parts" in claim 3 - -.

35 U.S.C. 102(b) Rejection:

The Examiner rejected claim 8 under 35 U.S.C. 102(b) as being anticipated by Smith (US Patent No. 5,021,801). Claim 8 has been amended to include the following features, "a plurality of receive amplifiers, comprising delay elements operably connected to said plurality of antennas, wherein said decorrelating delay is introduced between said signals provided to said adjacent coverage areas. " In addition, the preamble has been amended to recite "A wireless infrastructure element to provide dynamic user sectorization by decorrelating signals received from adjacent coverage areas." This feature is disclosed in FIG. 6 and page 17, line 8 to page

18, line 19 of the specification. Thus, to vary the size of a set of user sectors . . . a delay is introduced between each pair of identical PN-modulated signals projected to adjacent coverage areas within a given user sector, thereby decorrelating each such pair of signals. See page 11, line 32 to page 12, line 3 of the specification.

This feature is not disclosed in Smith. Instead, Smith “provides dynamic frequency allocation in a cell.” See col. 2, lines 38-41. Since Smith does not disclose all the features of amended claim 8, and its dependent claims, these claims are not anticipated by Smith. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” MPEP § 2131 (citing Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)).

35 U.S.C. 103(a) Rejection:

Claims 1-5 and 7 are rejected to under 35 U.S.C. 103(a) as being unpatentable over Meidan (US Patent No. 5,276,907) in view of Schilling (US Patent No. 5,422,908).

Claims 1 and 7:

The Examiner argues that the features of claim 1 and 7 are disclosed by the combination of Meidan in view of Schilling. Applicants respectfully disagree with the Examiner. Said first and second signals in Schilling are the same signals, the spread-spectrum signal $d(t)g(t)\cos\omega_0 t$ and a delayed version of the spread-spectrum signal $d(t-\tau)g(t-\tau)\cos\omega_0(t-\tau)$. Col. 3, 25-36. They are not from different sectors. Instead, they are from different paths. “The different phase and/or time delay arises . . . from the spread spectrum signal 15 and the phased version of the spread spectrum signal 16 arriving from different paths, such as bouncing off different buildings. Col. 3, lines 8-12.

The second element of claim 1 has been amended to further clarify this point, “receiving a second signal from a second sector adjacent to said first sector” In addition, the signals have been amended to read PN-modulated signal. Also, the third element has been amended to read “introducing a delay between said pair of PN-modulated signals projected to adjacent coverage areas within a given user sector, whereby said PN-modulated signals are

decorrelated." Support for these amendments is found on Page 11, line 33 to page 12, line 3 and page 22, line 32 to page 23, line 2 of the specification. Similar amendments have been made to the elements of claim 7. None of these features are disclosed by the combination of Meidan and Schilling. Thus, claims 1 and 7 are patentable.

Claim 2:

With respect to claim 2, the Examiner argues that "Schilling also discloses splitting the first signal into multiple parts (figure 3 block 21 column 4 lines 49-63); and splitting the second signal into multiple parts (figure 3 block 21 column 4 lines 49-63). . . ." Applicants respectfully disagree with the Examiner. Blocks 21 and 22 are RF/IF sections which generate in-phase components and quadrature-phase component of the received and the phased-version of the spread-spectrum signals respectively. Since all the features of claim 2 are not disclosed by the combination of Meidan and Schilling, claims 2 is patentable. In addition, claim 2 is allowable because it depends on allowable claim 1.

Claims 3 and 4:

Claim 3 is allowable because it depends on allowable claim 1. Claim 4 is allowable because it depends on allowable claim 3.

Claims 5 and 6:

With respect to claim 5, the Examiner argues that Schilling also argues generating an In-phase component and a Quadrature component of the first summation signal; (figure 3 block 31 column 6 lines 30-37) and generating an In-phase component and a Quadrature component of the second summation signal; (figure 3 block 31 column 6 lines 30-37). Applicants respectfully disagree with the Examiner. "The despreading device 31 despreads the first combined signal and the second combined signal as a despread quadrature-phase signal and a despread in-phase signal, respectively." Col. 6, lines 30-33. That is, the first combined signal is despread as a despread quadrature-phase signal. The second combined signal is despread as an in-phase signal. Thus, the despreader does not generate both "an In-phase component and a Quadrature

component of the first summation signal” as disclosed in claim 5. Likewise, the despreader does not generate both “an In-phase component and a Quadrature component of the second summation signal” as disclosed in claim 5. Therefore, since all the features of claim 5 is not disclosed by the prior art, claim 5 is patentable over the combination of Median and Schilling. In addition, claim 5 is allowable because it depends on allowable claim 4.

Claim 6 is allowable because it depends on allowable claim 5.

NEW CLAIMS

New claims 9-41 have been added. Applicant believes these claims add no new matter to the application and are fully supported by the original disclosure. For example, support for claim 9 is found in page 11, lines 32 to page 12, line 10 and page 22, line 32 to page 23, line 2. Support for claim 10 is found in page 12, lines 3-5. Support for claim 11 is found in page 8, lines 21-27 and FIG. 1D. Support for claim 12 is found in page 8, lines 27-30. Support for claim 13 is found in page 9, lines 22-25 and FIG. 1D. Support for claim 14 is found in page 10, line 23 and page 10, line 32 to page 11, line 8. Support for claim 15 is found in page 9, lines 31-33. Support for claim 16 is found in page 8, line 25 – page 9, line 9 and FIG. 1D and page 10, lines 1-4. Support for claim 17 is found in page 9, lines 2-4. Support for claim 18 is found in page 10, line 23 and page 10, line 32 to page 11, line 8. Support for claim 19 is found in page 8, lines 21-27 and FIG. 1D. Support for claim 20 is found in page 8, lines 27-30. Support for claim 21 is found in page 9, lines 22-25 and FIG. 1D. Support for claim 22 is found in page 9, lines 31-33. Support for claim 23 is found in FIG. 6 and Page 17, line 8 to page 18, line 19 and page 22, lines 11-12. Support for claim 24 is found in page 17, line 33 to page 18, line 6. Support for claim 25 is found in page 21, lines 30-32. Support for claim 26 is found in page 17, lines 25-27. Support for claim 27 is found in page 22, lines 12-16. Support for claim 28 is found in page 21, lines 30-32. Support for claim 29 is found in FIG. 2, page 12, line 21 to page 13, line 16. Support for claim 30 is found in FIG. 2 and page 13, lines 22-24. Support for claim 31 is found in page 14, lines 2-4. Support for claim 32 is found in page 14, line 32 – page 15, line 1. Support for claim 33 is found in FIG. 12 and page 23, lines 27-29. Support for claim 34 is found in FIG. 12 and page 24, lines 1-6. Support for claim 35 is found in FIG. 13 and page 24, lines 16-25. Support for claim 36 is found in page 13, lines 28-29. Support for claim 37 is found in

page 16, lines 23-24. Support for claim 38 is found in FIG. 12; Page 23, lines 27-29, page 24, lines 1-6. Support for claim 39 is found in page 13, lines 22-24. Support for claim 40 is found in FIG. 13 and page 23, lines 27-29, page 24, lines 16-25. Support for claim 41 is found in page 13, lines 28-29.

DRAWINGS

With respect to paragraph a, applicants respectfully disagree with the Examiner. FIG. 3 as filed does contain blocks 68 and 70.

With respect paragraph b, applicants respectfully disagree with the Examiner. FIG. 4 as filed does contain blocks 114A-114B, 116A-116B, 104A-104B and 106A-106B.

With respect paragraph c, amplifiers 254-256 have been placed in the same direction as amplifiers 220 to comply with the Examiner's request.

With respect paragraph d, the Examiner states "The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mention in the description: "347 and "348" (see figure 8). In response to the Examiner's objection, the paragraph beginning on page 20, line 28 and ending on page 21, line 5 has been amended to include the following phrase "supplied by PN_i generator 347 and PN_O generator 348."

With respect to paragraph e, in the paragraph located on page 25, lines 19 – 30, "498-501" has been changed to - - 498-500 and 502 - -. Thus, reference character 502 is mentioned in the specification.

With respect to the Examiner's objection in paragraph f, reference numeral 100 has been added to FIG. 4.

With respect to the Examiner's objection in paragraph g, reference numeral 330 has been added to FIG. 8.

With respect to the Examiner's objection in paragraph h, reference numeral 382 is already disclosed in FIG. 9.

With respect to the Examiner's objection in paragraph i, reference numerals 252-254 have been added to FIG. 13.

With respect to the Examiner's objection in paragraph j, the arrow lines from blocks 250-252 to sector #1-sector #3 information signals in FIG. 6 have been flipped to comply with the Examiner's request.

With respect to paragraph k, FIG. 6 discloses "diversity receivers 250-252 which "frequency downconverts, and digitizes the received signal into composite I and Q components. The composite I and Q components [are] then demodulated, combined, deinterleaved and decoded. . . . Each I and Q component may be comprised of data signals from a given subscriber unit received by two or more of the antennas 85-90 associated with adjacent coverage areas C1-C6 of a given user sector." See page 18, lines 3-10 of the Specification. The received signals are received from summation networks 240 -242 respectively. Thus, "generating an I-phase component and a Quadrature component of the first summation signal and "generating an I-phase component and a Quadrature component of the second summation signal" are shown.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicant submits that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

Dated: June 29, 2007

By: /Larry J. Moskowitz/
Larry J. Moskowitz, Reg. No. 42,911
Patent Attorney

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ATTACHMENT A

STAMP HEREON ACKNOWLEDGES RECEIPT OF THE FOLLOWING IN THE
U.S. PATENT AND TRADEMARK OFFICE
(Mailed 11/28/95):

DOCKET NO: QCPA113A *jlw*
ENCLOSED ARE:
INFORMATION DISCLOSURE STATEMENT; FORM PTO-1449; *Twenty one* (11)
REFERENCED PATENTS AND POSTCARD.

APPLICANT: W. Eli Strich et al.
ASSIGNEE: QUALCOMM Incorporated
SERIAL NO.: 08/495,382
FILED: June 28, 1995
FOR: DYNAMIC SECTORIZATION IN SPREAD SPECTRUM
COMMUNICATION SYSTEM

STAMP HERE SHOWING RECEIPT (THANK YOU):

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of)
W. ELI STRICH ET AL.) For: DYNAMIC SECTORIZATION IN A
Serial No. 08/495,382) SPREAD SPECTRUM
Filed: June 28, 1995) COMMUNICATION SYSTEM
Group Art Unit: 2202

SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR § 1.56

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Attention: Gregory, B
Examiner

Dear Sir:

This document is in supplement to the Information Disclosure Statements
filed June 28, 1995 and October 16, 1995 for the above identified application.
Applicants submit

I hereby certify that this correspondence is being
deposited with the United States Postal Service as
first class mail in an envelope addressed to the
Commissioner of Patents and Trademarks,
Washington, D.C. 20231, on:

November 20, 1995

(Date of Deposit)

Phuong Tran

(Name of the Person Making Deposit)

(Signature)

November 20, 1995

(Date of Signature)

herewith references of which they have recently become aware, which they believe may be material to the examination of this application and with respect to which there may be a duty to disclose in accordance with 37 CFR § 1.56.

PATENTS

U.S. Patent No. 4,435,840 issued March 6, 1984 to Junichiroh Kojima et al.
U.S. Patent No. 4,549,311 issued October 22, 1985 to Michael J. McLaughlin.
U.S. Patent No. 4,485,486 issued November 27, 1984 to Ronald J. Webb et al.
U.S. Patent No. 4,704,734 issued November 3, 1987 to Barry J. Menich et al.
U.S. Patent No. 4,726,050 issued February 16, 1988 to Barry J. Menich et al.
U.S. Patent No. 4,750,036 issued June 7, 1988 to Louis Martinez.
U.S. Patent No. 5,021,801 issued June 4, 1991 to John M. Smith et al.
U.S. Patent No. 5,048,116 issued September 10, 1991 to Dennis R. Schaeffer.
U.S. Patent No. 5,187,806 issued February 16, 1993 to Edward R. Johnson et al.
U.S. Patent No. 5,193,109 issued March 9, 1993 to William Chien-Yeh Lee.
U.S. Patent No. 5,241,685 issued August 31, 1993 to Roland Bodin et al.
U.S. Patent No. 5,265,263 issued November 23, 1993 to Peter A. Ramsdale et al.
U.S. Patent No. 5,404,576 issued April 4, 1995 to Masahiko Yahagi.
U.S. Patent No. 5,422,908 issued June 6, 1995 to Donald L. Schilling.
U.S. Patent No. 4,652,880 issued March 24, 1987 to Moeller et al.
U.S. Patent No. 5,343,173 issued August 30, 1994 to Balodis et al.

FOREIGN

PCT Patent Application No. PCT/US92/10074, Publication No. WO 93/12590 published June 24, 1992 to Arraycomm, Incorporated.

PUBLICATIONS

"A Spectrum Efficient Cellular Base-Station Antenna Architecture", Sixth International Conference On Mobile Radio and Personal Communications, S. C. Swales et al., Pgs. 272-279, Conference Publication Number 351.

"Multi-Beam Adaptive Base-Station Antennas for Cellular Land Mobile Radio Systems", 39th IEEE Vehicular Technology Conference, S. C. Swales et al., Volume I, May 1-3, 1989, San Francisco, California, Pgs. 341-348.

"Smart Antenna Module", Northern Telecom Inc., October 5, 1993, 4 pgs.

"PCS 1900 Advanced Services Generating Revenue for FCS Providers", Northern Telecom Inc., September, 1993, 13 pgs.


While the references identified herein may be material to the examination of this application pursuant to 37 CFR § 1.56, the citation of these references is not intended to constitute an admission that any reference referred to herein is prior art to the invention of this application unless specifically designated as such.

The filing of this document shall not be construed to mean that any search has been made or, that if made such search was complete or exhaustive, or that no other material information as defined in 37 CFR § 1.56 exists.

A list of the references cited herein is set forth on Form PTO-1449 which is enclosed herewith along with a copy of each cited reference.

Respectfully submitted,

Dated: November 20, 1995

By: 
Russell B. Miller
Attorney for Applicants
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FORM PTO-1449 (REV. 7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. QCPA113A	SERIAL NO. 08/495,382
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		APPLICANT FRANKLIN P. ANTONIO ET AL.	
DATE MAILED: November 20, 1995		FILING DATE June 28, 1995	GROUP 2202

U.S. PATENT DOCUMENTS

*EXAMINE R INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPRO- PRIATE
AA	4 4 3 5 8 4 0	3/6/84	Junichiroh Kojima et al	455	33	6/14/82
AB	4 5 4 9 3 1 1	10/22/85	Michael J. McLaughlin	455	277	3/20/85
AC	4 4 8 5 4 8 6	11/27/84	Ronald J. Webb et al.	455	33	2/6/84
AD	4 7 0 4 7 3 4	11/3/87	Barry J. Menich et al.	455	33	2/18/86
AE	4 7 2 6 0 5 0	2/16/88	Barry J. Menich et al.	379	60	7/13/87
AF	4 7 5 0 0 3 6	6/7/88	Louis Martinez	358	147	5/14/86
AG	5 0 2 1 8 0 1	6/4/91	John M. Smith et al.	343	876	9/5/89
AH	5 0 4 8 1 1 6	9/10/91	Dennis R. Schaeffer	455	33	5/24/89
AI	5 1 8 7 8 0 6	2/16/93	Edward R. Johnson et al.	455	15	2/16/90
AJ	5 1 9 3 1 0 9	3/9/93	William Chien-Yeh Lee	379	60	10/25/91
AK	5 2 4 1 6 8 5	8/31/93	Roland Bodin et al.	455	33.2	3/15/91
AL	5 2 6 5 2 6 3	11/23/93	Peter A. Ramsdale et al.	455	33.2	2/14/91
AM	5 4 0 4 5 7 6	4/4/95	Masahiko Yahagi	455	56.1	12/11/92
AN	5 4 2 2 9 0 8	6/6/95	Donald L. Schilling	375	203	11/22/93

FOREIGN PATENT DOCUMENTS

*EXAMINE R INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	NAME	CLASS	SUB CLASS
AO	9 2 1 0 0 7 4	6/24/93	PCT	Arraycomm, Incorporated	H04B	7/26

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Page, Etc.)

AR	"A Spectrum Efficient Cellular Base-Station Antenna Architecture", Sixth International Conference On Mobile Radio and Personal Communications, S. C. Swales et al., Pgs. 272-279, Conference Publication Number 351.
	"Multi-Beam Adaptive Base-Station Antennas for Cellular Land Mobile Radio Systems", 39th IEEE Vehicular Technology Conference, S. C. Swales et al., Volume I, May 1-3, 1989, San Francisco, California, Pgs. 341-348.
AS	"Smart Antenna Module", Northern Telecom Inc., October 5, 1993, 4 pgs.
	"PCS 1900 Advanced Services Generating Revenue for PCS Providers", Northern Telecom Inc., September, 1993, 13 pgs.

EXAMINER	DATE CONSIDERED
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 519. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

FORM PTO-1449 (REV. 7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. QCPA113A	SERIAL NO. 08/495,382
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		APPLICANT FRANKLIN P. ANTONIO ET AL.	
DATE MAILED: November 20, 1995		FILING DATE June 28, 1995	GROUP 2202

U.S. PATENT DOCUMENTS												
*EXAMINE R INITIAL	DOCUMENT NUMBER								DATE	NAME	CLASS	FILING DATE IF APPROPRIATE
	AA	4	6	5	2	8	8	0	3/24/87	Moeller et al.	342	6/27/86
	AB	5	3	4	3	1	7	3	8/30/94	Balodis et al	333	6/28/91
	AC											
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*EXAMINE R INITIAL	DOCUMENT NUMBER								DATE	COUNTRY	NAME	SUB CLASS
	AO											

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Page, Etc.)

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	AS		

EXAMINER	DATE CONSIDERED
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with text communication to applicant.	

ATTACHMENT B

STAMP HEREON ACKNOWLEDGES RECEIPT OF THE FOLLOWING IN THE
U.S. PATENT AND TRADEMARK OFFICE
(Mailed 12/12/95):

DOCKET NO: QCPA113A
ENCLOSED ARE:
INFORMATION DISCLOSURE STATEMENT; FORM PTO-1449; ONE (1)
REFERENCED PATENTS AND POSTCARD.

APPLICANT: W. Eli Strich et al.
ASSIGNEE: QUALCOMM Incorporated
SERIAL NO.: 08/495,382
FILED: June 28, 1995
FOR: DYNAMIC SECTORIZATION IN A SPREAD SPECTRUM
COMMUNICATION SYSTEM

STAMP HERE SHOWING RECEIPT (THANK YOU):

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of)
W. ELI STRICH ET AL.) For: DYNAMIC SECTORIZATION IN A
Serial No. 08/495,382) SPREAD SPECTRUM
Filed: June 28, 1995) COMMUNICATION SYSTEM
Group Art Unit: 2202

SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR § 1.56

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Attention: Gregory, B
Examiner

Dear Sir:

This document is in supplement to the Information Disclosure Statements
filed June 28, 1995 and November 20, 1995 for the above identified application.

I hereby certify that this correspondence is being
deposited with the United States Postal Service as
first class mail in an envelope addressed to the
Commissioner of Patents and Trademarks,
Washington, D.C. 20231, on:

December 12, 1995

(Date of Deposit)

Phuong Tran

(Name of the Person Making Deposit)

(Signature)

December 12, 1995

(Date of Signature)

Applicants submit herewith references of which they have recently become aware, which they believe may be material to the examination of this application and with respect to which there may be a duty to disclose in accordance with 37 CFR § 1.56.

PATENTS

U.S. Patent No. 4,901,307 issued February 13, 1990 to Klein S. Gilhousen et al.

U.S. Patent No. 5,235,616 issued August 10, 1993 to Bruno R. Seiblet.

U.S. Patent No. 5,317,593 issued May 31, 1994 to Tracy L. Fulghum et al.

U.S. Patent No. 5,428,818 issued June 27, 1995 to Reuven Meidan et al.

PUBLICATIONS

"Frequency Re-using Pattern for Forward Link of Orthogonal CDMA Cellular Systems", IEICE TRANS. COMMUN., Mitsuyoshi Suzuki et al., Volume E77-B, No. 6, June 1994, Pgs. 838-842.

"Capacity Improvement with Base-Station Antenna Arrays in Cellular CDMA", IEEE Transactions on Vehicular Technology, Ayman F. Naguib et al., Volume 43, No. 3, August 1994, Pgs. 691-698.

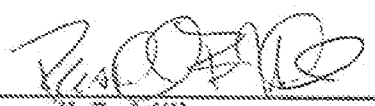
While the references identified herein may be material to the examination of this application pursuant to 37 CFR § 1.56, the citation of these references is not intended to constitute an admission that any reference referred to herein is prior art to the invention of this application unless specifically designated as such.

The filing of this document shall not be construed to mean that any search has been made or, that if made such search was complete or exhaustive, or that no other material information as defined in 37 CFR § 1.56 exists.

A list of the references cited herein is set forth on Form PTO-1449 which is enclosed herewith along with a copy of each cited reference.

Respectfully submitted,

Dated: December 12, 1995

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Russell B. Miller
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DATE MAILED: December 12, 1995		FILING DATE June 28, 1995	GROUP 2202

U.S. PATENT DOCUMENTS

*EXAMINE R INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPRO- PRIATE
	AB 4 9 0 1 3 0 7	2/13/90	Klein S. Gilhousen et al.	370	18	10/17/86
	AC 5 2 3 5 6 1 6	8/10/93	Bruno R. Seblet	375	1	9/11/92
	AD 5 3 1 7 5 9 3	5/31/94	Tracy L. Fulghum et al.	375	1	3/3/93
	AE 5 4 2 8 8 1 8	6/27/95	Reuven Meidan et al.	455	33.3	1/18/94
	AF					
	AG					
	AH					
	AI					
	AJ					
	AK					

FOREIGN PATENT DOCUMENTS

*EXAMINE R INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	NAME	CLASS	SUB CLASS
	AL					
	AM					
	AN					
	AO					

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Page, Etc.)

	AR	"Frequency Re-using Pattern for Forward Link of Orthogonal CDMA Cellular Systems", IEICE TRANS. COMMUN., Mitsuyoshi Suzuki et al., Volume E77-B, No. 6, June 1994, Pgs. 838-842.
		"Capacity Improvement with Base-Station Antenna Arrays in Cellular CDMA", IEEE Transactions on Vehicular Technology, Ayman F. Naguib et al., Volume 43, No. 3, August 1994, Pgs. 691-698, Pgs. 691, Column 1, Line 1-10, Pgs. 697, Line 1-11.
	AS	
	AT	

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